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**(54) LOW LOSS OXIDE MATERIAL****(57)Abstract:**

**PURPOSE:** To provide Mn-Zn ferrite base low loss oxide material comprising a composition capable of diminishing defects of conventional Mn-Zn based ferrite for miniaturization and lighening weight of a power supply by changing the drive frequency of a switching power supply to high-frequency (1-5MHz) while increasing the strength by heightening density as well as greatly cutting down the core loss.

**CONSTITUTION:** By adding a specific amount of CaO, SiO<sub>2</sub>, V<sub>2</sub>O<sub>5</sub>, TiO<sub>2</sub>, SnO<sub>2</sub> to the baseic composition comprising 67.1-69.6mol% of Fe<sub>2</sub>O<sub>3</sub>, 18.9-26.9mol% of MnO, and remaining ZnO, the characterisitics of the minimum value of the magnetic core loss not exceeding 500KW/m<sup>3</sup> meeting the requirements of the frequency 1MHz-5MHz, 60-100°C and the product of frequency and the maximum induction flux density of 75000Hz.T can be obtained.

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